

1. A centrifugal rotor comprising:  
a rotor body including:  
a liquid-dispensing chamber;  
a liquid-receiving chamber; and  
a siphon connecting the liquid-dispensing chamber and the liquid-receiving chamber, said siphon including:  
a siphon inlet connected to the liquid-dispensing chamber;  
a siphon outlet connected to the liquid-receiving chamber;  
and  
a siphon body portion between said siphon inlet and said siphon outlet, the body portion extending radially inwardly and having an innermost portion that is radially inward of the innermost portion of the liquid-dispensing chamber.

2 The rotor of claim 1, wherein said liquid-dispensing chamber is a plasma metering chamber and said liquid-receiving chamber is a mixing chamber.

3. The rotor of claim 1, wherein said liquid-dispensing chamber is a diluent metering chamber and said liquid-receiving chamber is a mixing chamber.

4. The rotor of claim 1, wherein said liquid-receiving chamber is a distribution ring.

- 1           5.       A centrifugal rotor comprising:
- 2                   a rotor body comprising a liquid-dispensing chamber containing a liquid, a
- 3                   liquid-receiving chamber, and a siphon;
- 4                   the siphon being connected to the liquid-dispensing chamber through a
- 5                   siphon inlet and connected to the liquid-receiving chamber through a siphon outlet,
- 6                   the siphon inlet being radially inward of the siphon outlet, said siphon traveling
- 7                   radially inward to a point radially inward of said siphon inlet and then radially
- 8                   outward to said siphon outlet; the rotor further comprising:
- 9                   a cuvette containing reagents necessary for the analysis of a
- 10                  biological sample, wherein said cuvette is radially outward of said liquid-
- 11                  dispensing chamber and said liquid-receiving chamber, and;
- 12                  a distribution ring which permits flow of a liquid to said cuvette
- 13                  from an output siphon connected to the liquid-receiving chamber.
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1 6. A centrifugal rotor comprising:

2 a rotor body comprising a liquid-dispensing chamber containing a liquid, a  
3 liquid-receiving chamber, and a siphon;

4 the siphon being connected to the liquid-dispensing chamber through a  
5 siphon inlet and connected to the liquid-receiving chamber through a siphon outlet,  
6 the siphon inlet being radially inward of the siphon outlet, said siphon traveling  
7 radially inward to a point radially inward of said siphon inlet and then radially  
8 outward to said siphon outlet; the rotor further comprising:

9 a distribution ring positioned radially outward of the liquid receiving  
10 chamber; and

11 a delivery channel connecting the distribution ring to the liquid-  
12 receiving chamber, said distribution ring being connected to a cuvette  
13 through an inlet channel.  
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15 7. The rotor of claim 6, wherein the inlet channel has a cross sectional area at  
16 least about 1.5 times the cross sectional area of the delivery channel.  
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18 8. The rotor of claim 7, wherein the cross sectional area of the inlet channel is  
19 about 2 times the cross sectional area of the delivery channel.  
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21 9. The rotor of claim 7, wherein the cross sectional area of the delivery  
22 channel is about 0.03 mm<sup>2</sup>.  
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FOOTNOTED

10. The rotor of claim 6, wherein the delivery channel is a siphon.

1           11.    A method of delivering a premeasured volume of liquid from a first  
2 chamber to a second chamber in a rotor, the method comprising:

3                providing a rotor comprising a first chamber with a first volume, a second  
4 chamber, and a siphon connected to the first chamber through a siphon inlet and  
5 connected to the second chamber through a siphon outlet, the siphon inlet being  
6 radially inward of the siphon outlet;

7                spinning the rotor, thereby introducing an unmeasured volume of liquid into  
8 the first chamber;

9                stopping the rotation of the rotor, thereby priming the siphon connecting the  
10 first chamber to the second chamber; and

11              spinning the rotor, thereby initiating the operation of the siphon and  
12 delivering the premeasured volume of the liquid from the first chamber to the  
13 second chamber, the premeasured volume being determined by the radial position  
14 of the siphon outlet and the first volume of the first chamber.